

## The Geography of Employment Growth: The Support Networks for Gazelle IPOs

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### Purpose

Considerable research has shown that “gazelles,” small companies that undergo rapid growth, are a significant source of employment creation both in the United States and abroad. As job creators, gazelles are the focus of continued research interest. The authors sought to explore the network of support for gazelles that take their companies from early growth to public through initial public offerings (IPOs). This entrepreneurial support network, or ESN, is comprised of law firms, venture capitalists (VCs), and lead investment bankers, the core of the team needed to launch an IPO. The authors examine when and under what conditions specific legal, finance, and banking that support successful entrepreneurship are in close physical proximity to gazelles. Of the various possible business growth measures, the authors chose to examine the overall impact of these networks on gazelles’ employment growth.

### Background

Building a new firm, and particularly a fast-growing gazelle, requires the recruitment of various resources including skilled labor, capital, customers, and suppliers. The entrepreneur must bring together a network that will provide them with tangible resources (such as finance) and less tangible ones (such as legitimacy). These make up the entrepreneurial support network or ESN. The study of ESNs is most advanced in the case of biotechnology, where venture capital connections, downstream contracts with corporations interested in licensing, and upstream

relationships with research institutions have been mapped and studied in-depth.

While research exists on biotechnology and the general location of venture capitalists, little research has been conducted on the location of other members of the ESN, such as the focal firm’s outside counsel, and investment bankers. A number of scholars have noticed a marked tendency for close spatial proximity of firms to other networks, such as VCs. While academic research on fast-growing firms has concentrated on the role of venture capital, there are a number of gazelles that have grown significantly large to undertake an IPO while never having received VC investment—bootstrapped firms relying on financing other than VC have often been omitted. However, most U.S. regions either have small VC communities or none at all. For these reasons, encouraging startup sectors that do not require VC should be considered. In addition, at this time, there is little data to indicate which industries these may be.

### Overall Findings

The most salient outcome of this research is the extraordinary concentration in California of firms capable of undertaking an IPO. Despite California’s absolute dominance, it was Massachusetts that had the highest per capita number of IPOs. While these two states stood out, Florida, New York, and Texas also were very active. Equally eye-opening was the very small number of firms from important states such as Ohio, Michigan, Indiana, and Wisconsin, which has a sizable technology cluster in Madison. Specific findings include:

- U.S. public equity markets are providing capital to small firms (under 200 employees), but their willingness to do so is strongly affected by stock market cycles. When the stock market is stagnant or dropping, far fewer firms undertake IPOs and those that do, grow more slowly. Despite their slower growth, they also appear to have superior survival rates.
- The ESNs are also concentrated in California particularly in the case of VC firms, though nearly every state has at least some VC or has access to VCs from other states. New York was found to be a leading exporter of venture capital, as well as legal services. California was largely self-contained but did export legal services to other states, particularly surrounding ones.
- Washington, D.C., provided legal services to IPO firms in Virginia and Maryland.
- In terms of the gazelles (top quartile performers), as expected, the employment growth rate of the gazelles decreases over time.
- Of the super-gazelles (the top ten performers in each cohort), California firms not only outperformed those in other states, but the performance gap grew as the firms matured. In contrast, VC-financed firms underperformed the market of all IPOs by the third and fifth year, but by the tenth year, those that survived dramatically outperformed their peers.

## Policy Implications

These findings suggest policies that would:

- Reduce state and local emphasis on “smoke stack chasing,” i.e., the practice of recruiting businesses through financial incentives. Evidence has shown that this is not the best economic development policy. Rather, efforts should be made to encourage entrepreneurship and cluster formation.
- Focus on successful firms that can be created despite an absence of network support. Not all regions have strong ESNs.
- Emphasize extra-local ESNs who may overcome the lack of local networks. In addition, there are industries and fields, e.g., biotechnology, within which successful firms can be created despite the scarcity of ESNs.
- Increase the strength of university linkages to potentially high growth startups. Linkages are very important for areas not considered an entrepreneurial hot spot, e.g., Minneapolis-St. Paul, with its numerous medical instrument startups.

## Scope and Methodology

The database is comprised of all *de novo* initial public offerings (IPOs) on American stock exchanges and filed with the Securities and Exchange Commission (SEC) from June 1996 through December 2006. The original count of firms included in the study was 2,123. Each firm was examined as to whether it was a true *de novo* startup. In assembling the set of firms the authors relied upon Thomson Financial to generate a list of all IPOs over this time period. From this list the following types of firms and filings were excluded: mutual funds, real estate investment trusts, asset acquisition or blank check companies, all small businesses (SB-2) IPOs with the exception of Internet firms, and all spin offs and other firms that were not true *de novo* firms. Other guidelines were also used to determine *de novo* firm status including partnership status and merged companies. Firms formed before 1970 were excluded as were firms with indeterminate founding dates.

The SEC documents used for the database were found in the SEC EDGAR website. EDGAR has a complete record of all IPO documents going public from June 1996 onward. Over 25 database variables were available including industrial sector, employment size, and mean time in IPO. The data allowed detailed analysis of IPO activity by state and industry sector. In addition, perhaps the most important question is the fate of firms making a public offering, i.e., is it still operating at the end of the period, merged or acquired, or not surviving and bankrupt? Each of these outcomes was established for each firm through an examination of the SEC filings.

This report was peer-reviewed consistent with Advocacy’s data quality guidelines. More information on this process can be obtained by contacting the director of economic research at [advocacy@sba.gov](mailto:advocacy@sba.gov) or (202) 205-6533.

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