

THE CONSTANT: COMPANIES THAT MATTER

Paul Kedrosky
Ewing Marion Kauffman Foundation

May 2013

Ewing Marion
KAUFFMAN
Foundation

THE CONSTANT: COMPANIES THAT MATTER

Paul Kedrosky
Ewing Marion Kauffman Foundation

May 2013

Ewing Marion
KAUFFMAN
Foundation

THE CONSTANT: COMPANIES THAT MATTER

INTRODUCTION

There are few constants in entrepreneurship—perhaps none. That is why when something appears to be even semi-stable across meaningful periods, it is usually worth further investigation.

This short paper investigates just such an apparent constant. Specifically, it is often claimed that there only are fifteen to twenty information technology companies created per year in the United States that turn out to “matter,” where matter is defined as the company (relatively) promptly going from founding to \$100 million in revenues. Further, and of real consequence to cities and regional economies, is that most such companies founded in any given year are thought to be in California. This paper tries to find out if the preceding is true.

MEASURING MATTER

There likely are almost as many ways to define companies that matter as there are companies, but most such methods are idiosyncratic, indefensible, or both. At the most basic level, if companies satisfy the desires of their entrepreneur founders then they are important, even if not in and of themselves individually significant with respect to employment and wealth creation in a modern economy like that of the United States. Nevertheless, to proceed, we need to think coherently about the idea of mattering, and why, in turn, the \$100 million criterion is a useful one.

Leaving aside an entrepreneur’s self-interest, as described above, many in regional economic development will say a company matters because it is “here” as opposed to somewhere else. They are not wrong, of course, because jobs always have been viewed intensely regionally, but this only is a slightly more rarefied version of the earlier definition. Yes, such companies matter, but their mere existence does not directly make them a force in the broader U.S. economy. It is parochial and hyper-regional to imply otherwise, no matter what a regional economic development official might tell his or her own city’s elected officials, or their electorate.

The list goes on and on. Many might point to a company being acquired by a larger, high-profile firm as making it important, or that a company appeared on a prominent list of companies, whether regional, national, or international. These all are valid criteria in their own way, but they are incomplete. For our purposes, companies that matter must meet (at least) the following three criteria:

- **They must be scalable.** They must, in other words, be able to grow to at least \$100 million in revenues, and ideally, much larger.

- **They must be disproportionate creators of jobs.** They must be able to generate jobs quickly and broadly, even if they may not generate jobs in line with their revenue growth.
- **They must be disproportionate creators of wealth.** Both directly, through profits, salaries, and profit-sharing, and indirectly, through equity, options, and perhaps a public listing, they must put wealth back in the hands of the company's ecosystem.

In short, these companies give cities, states, and countries an unfair economic advantage. They *matter*.

For the most part, companies that reach \$100 million in revenues without plateauing are such firms. Here are some of the things we know about companies with more than \$100 million in annual revenues:

- They are the most likely group of companies to go public, given scale, shareholder needs, and the cost of being listed
- They make up more than 95 percent of the market capitalization of major stock market indices
- Their cost of capital generally is materially lower than their smaller peers, making it easier for them to grow
- Most of their job and wealth creation happens post-IPO
- They produce more than 90 percent of the returns for the venture capital industry
- Their acquisition of smaller companies is an important source of liquidity and wealth for other entrepreneurs

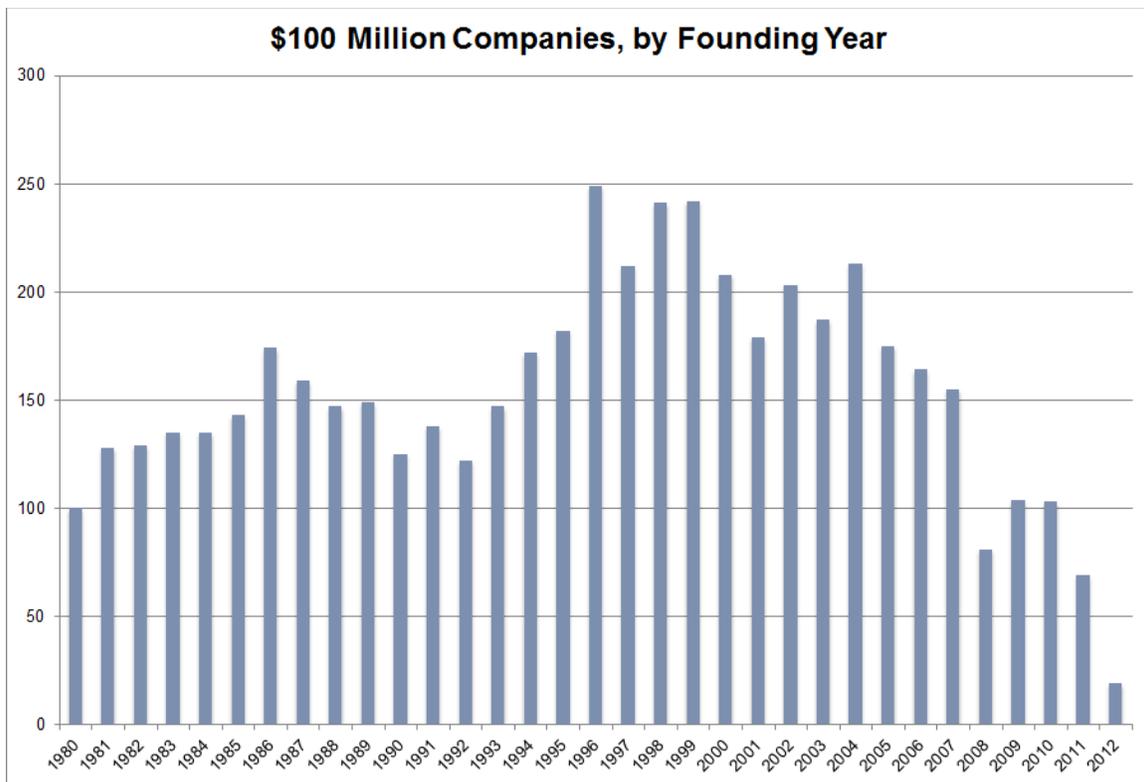
Of course, companies unable to reach \$100 million in revenues are hardly irrelevant. Instead, such new firms represent the majority of firms created in any given year, and their founding is a vital force in the economy, even if (many times by design) high growth is not in their future. We know, after all, that young firms—companies less than five years old—are the primary source of job creation in the United States. Nothing in this paper should take anything away from that.

DATA SOURCES

The general approach was to screen for conforming companies using well-known databases (like Capital IQ and Bloomberg) of private and public companies in the United States. The period analyzed was from 1980 to present, which, while hardly exhaustive, was long enough to show meaningful historical patterns. Data was collected on all sectors, not just information technology. Data also was obtained on founding year and headquarters location (both of which turned out to be considerably more difficult to obtain than one might expect). Finally, the data was adjusted for merger and acquisition and bankruptcy trends to compensate for survivorship biases.

ANALYSIS

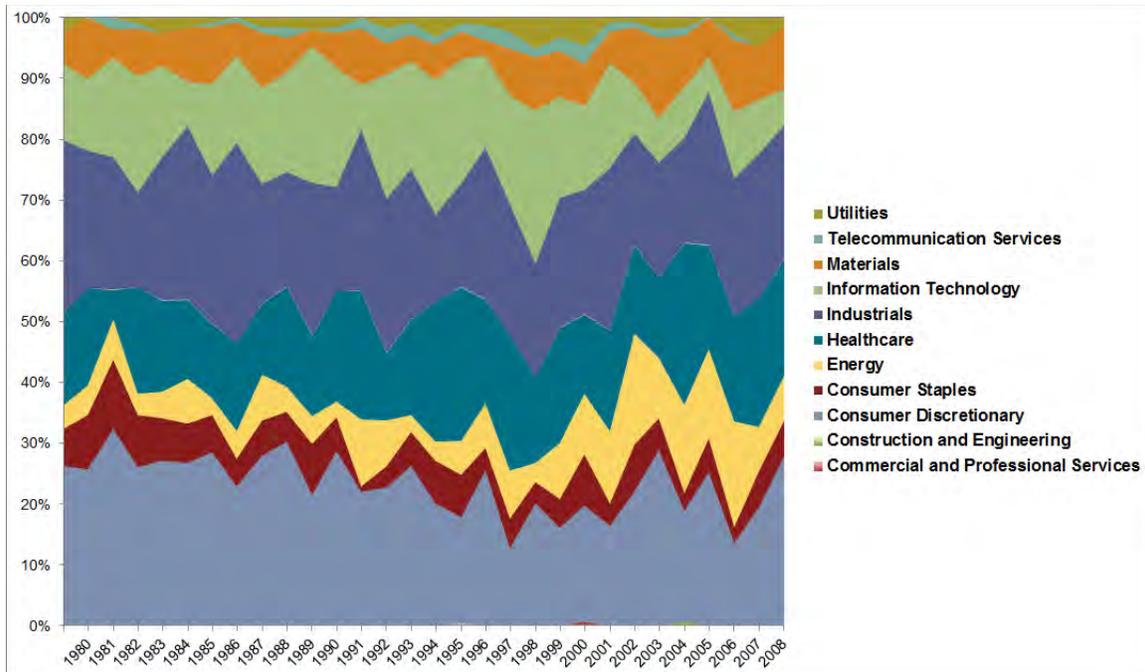
The following figure summarizes the number of U.S. companies—private and public combined—by founding year that make it to at least \$100 million in revenues. There are many important caveats, of course. First, private company data is much worse than public company data, with it not always possible to know a non-public company's revenues with clarity and timeliness. Second, there is survivorship bias in the data, with companies that have since disappeared no longer represented. Some of that bias can be dealt with via looking at historical mergers and acquisition trends, as well as bankruptcy filing data, but undercounting cannot entirely be eliminated. Even with any undercounting, however, we can see the general trend and order of magnitude, as shown in the following figure.



As this figure shows, anywhere from 125 to 250 companies per year that are founded in the United States (out of roughly 552,000 new employer firms that open each year) reach \$100 million in revenues in a reasonable timeframe. It is, as one might expect, a very small percentage, even if often by design, given that most companies are not growth firms, with little expectation to grow beyond a level that supports its founder's needs or objectives. Nevertheless, this number is important, and worth keeping in mind, both in the context of this paper and in the context of the economy itself.

Broader figures like this mask what is happening on a sector-by-sector level. From which sectors are the companies that reach \$100 million coming? What sectors produce the most? The fewest? And do they do so at a rate commensurate with their role in the economy?

The following figure is a first attempt at answering that question. It shows the contribution of each major U.S. industry sector to the production of firms that reach \$100 million in revenues.¹

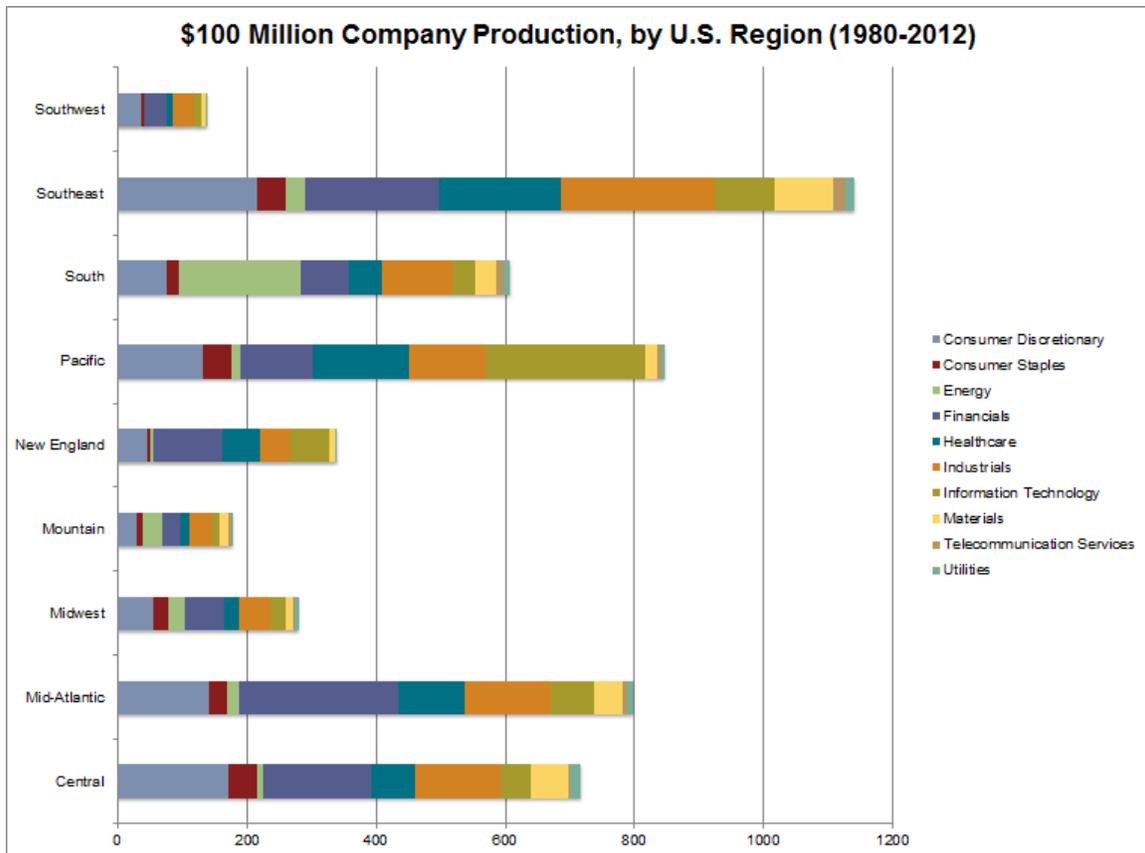


Unsurprisingly, but contrary to some rhetoric, while information technology is important, it is not the most important contributor in percentage terms to the \$100-million firms in the United States on a founding cohort basis. Instead, the largest contributors, in percentage terms, are consumer discretionary and industrials. After all, the consumer discretionary and the industrial sectors are the largest non-government segments of the U.S. economy, so it stands to reason they produce more companies, many of which, in turn, go on to become large and successful.

(Rebalancing to take into account sectoral contribution to U.S. GDP, the information technology sector produces somewhat more \$100-million companies than might be expected given its percentage of GDP. Further, information technology companies generally get to that hurdle faster than do companies in

¹ Note that this figure excludes the finance sector. The finance sector is exceedingly complex, and the role of government in the sector in the last decade has created distortions not easily eliminated from the data. As a result, it is not shown.

other sectors, which is a much bigger subject that we will look at in a subsequent paper.)

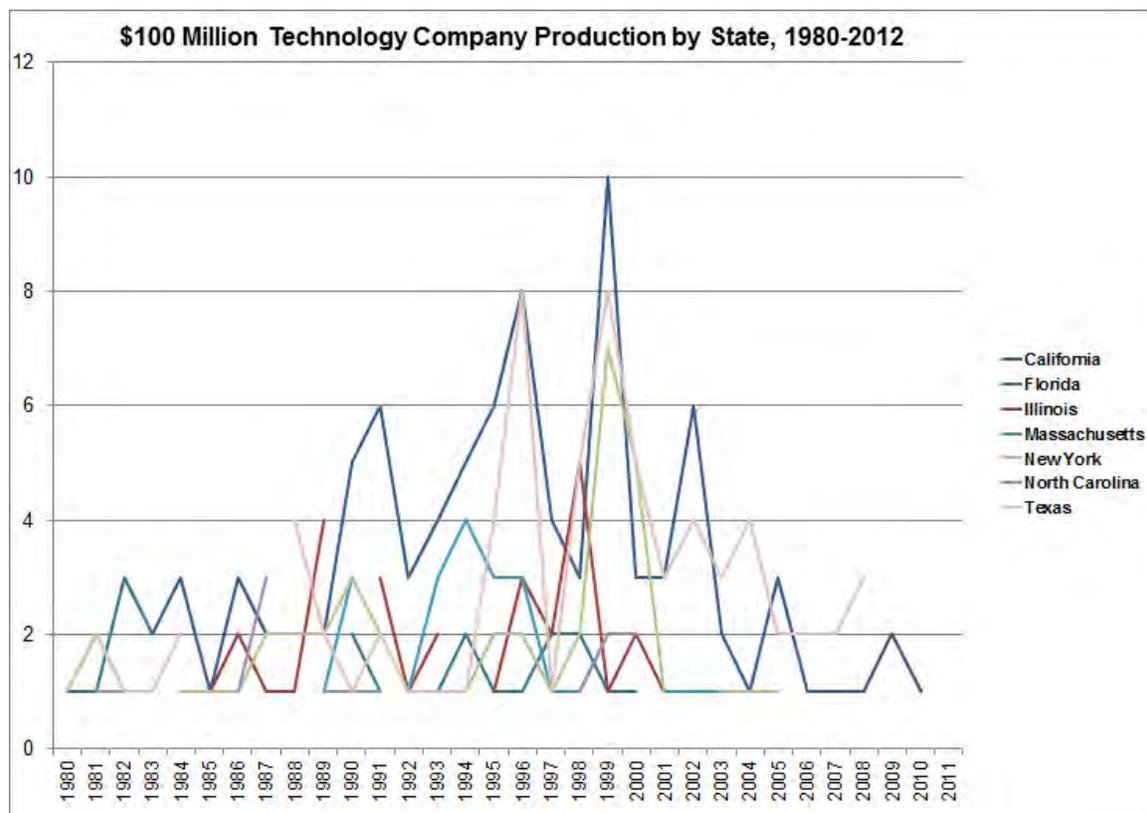


We also can look at the data on a sectoral basis by region. Which regions produce the most \$100-million companies, and is there a sectoral skew? The above figure provides answers to these questions for the 1980-2012 period. The most productive region of the United States in terms of \$100-million company production is the U.S. southeast (comprising Georgia, Florida, Kentucky, Louisiana, etc.). The next most productive region in terms of company production is the Pacific region (made up of California, Oregon, Washington, and Hawaii), followed closely by the Mid-Atlantic and Central regions.

More important for the purposes of this paper is the sectoral skew. Most regions are reasonably balanced with respect to sectors, except for the Pacific region. It produced only slightly fewer \$100-million information technology companies over the period than the rest of the country combined, and out of those states, California made up the lion's share of the production. Putting it in relative perspective, the Pacific region's production of \$100-million companies alone would, in standalone terms, be larger in \$100-million company creation than are the U.S. Midwest or Mountain regions in all sectors. That is fairly remarkable.

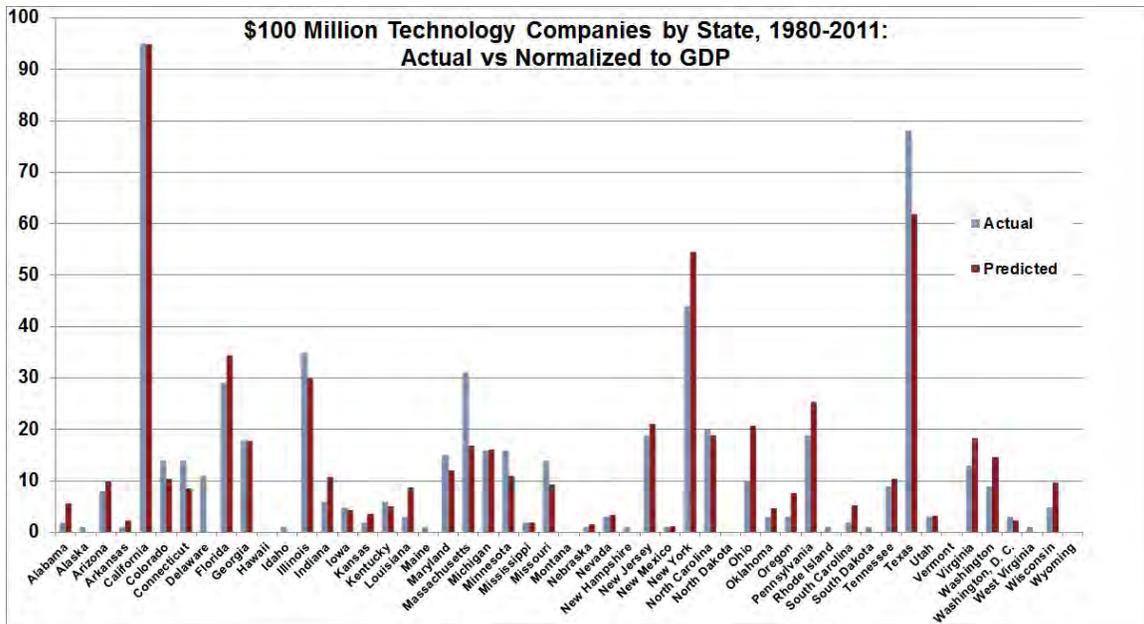
Taking things down at the sector level to states produces insights. If we compare California's \$100-million company production to that of other states producing at least twenty \$100-million companies over the 1980-2012 period, we are left with the following seven states: California, Florida, Illinois, Massachusetts, New York, North Carolina, and Texas. The United States averages twenty technology companies founded per year that reach \$100 million in revenues, seventeen of which are usually produced in the preceding seven states.

Approximately four of those companies are usually in California. While we can't always say with certainty, a quick sample of the underlying data shows that those four companies are, more often than not, in the Bay Area. Even if you leave California aside, the remaining six states dominate the country, making for a remarkable showing, one that demonstrates the highly asymmetric nature of technology company gains on a per-state basis.



Of course, comparing, say, Montana, to California in terms of \$100-million technology company founding is in many ways unfair. Most importantly, the former state is much smaller than the latter one, with a state economy only 2 percent the size of California's. One way to "normalize" for that difference—which isn't to say that a non-normalized comparison also isn't important—is to index technology company founding to a state's relative GDP among all U.S.

states. The result? A “GDP normalized” measure of company founding, one that we show in the following figure alongside the actual figures.



We also can turn the data around and look at which states are over- or under-achievers. The following table looks at which states do better in \$100-million company founding than might be expected given their size and general characteristics. Led by Massachusetts, all of these states have more technology companies founded there than might be expected.

State	Actual	Predicted	% diff
Massachusetts	31	17	46%
Connecticut	14	9	39%
Missouri	14	9	33%
Minnesota	16	11	31%
Colorado	14	10	26%
Washington, D. C.	3	2	21%

Turning things around, it also is possible to ask which states have fewer companies founded there than might be expected. In other words, which states that might be expected to have a material number of companies there, based on their size and other criteria, do not deliver at that level? The following table answers that question, showing the states that underachieve. The list is led by southern states, with Louisiana and Alabama doing worst, followed by South

Carolina. In somewhat of a surprise, Oregon comes next, despite its reputation as being a creative and supportive place for entrepreneurs and technology sorts.

State	Actual	Predicted	% diff
Louisiana	3	9	-193%
Alabama	2	6	-183%
South Carolina	2	5	-163%
Oregon	3	8	-156%
Arkansas	1	2	-135%
Ohio	10	21	-108%
Wisconsin	5	10	-94%

CONCLUSIONS AND IMPLICATIONS

We started this short paper asking whether there was a constant in entrepreneurship: the number of \$100-million technology companies founded per year in the United States. In doing this analysis, we discovered that this claim wasn't entirely wrong, but it was different than the claim that led us here, and arguably more intriguing.

While it varies greatly from year to year, there are, on average, fifteen to twenty technology companies founded per year in the United States that one day get to \$100 million in revenues. And, yes, California does have the largest share of those companies. It is a unique state when it comes to technology startups, and likely to remain so for historical and self-reinforcing reasons—as has been discussed repeatedly and at length elsewhere. But California's share of technology companies is nowhere near half of those companies, more like four per year, on average.

Is that share stable? Not really. In the 1990s, California's share of \$100-million technology companies founded in the United States was around 35 percent. It has since declined to more like 20 percent in recent years (subject to revision given that it is still too soon to tell how many total companies will be produced from these founding cohorts).

Looking forward, we likely will see even more changes. Current experiments in lean startups promise to make entrepreneurship less expensive and more widely available to prospective entrepreneurs. Accelerators are doing something similar, as is the declining overall cost of company creation. We are even seeing changes in the nature of company creation and startups themselves, with, for example, it becoming increasingly common to pursue what is sometimes called "fractional" entrepreneurship, the idea of doing multiple projects at once, one or more of which we might characterize as being an entrepreneurial venture.

The pace at which the United States produces \$100-million companies has been surprisingly stable over time, despite changes in the nature of the U.S. economy. While that pace has been stable, it has hidden changes in where those companies are created, and in the sectors from which we should expect such companies to come. In the future, it seems likely that we will see even more changes as the nature of company creation changes.